

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012037**Date Inspected:** 04-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Wuzhi Chang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder( OBG)/Tower**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

**OBG TRIAL ASSEMBLY**

This QA Inspector observed the following work in progress:

**SEGMENT: 7AW-7BW**

Flux Cored Arc Welding (FCAW) welding of weld joint OBW7B-001. Welder is identified as 066746. ZPMC Quality Control (QC) is identified as Mr. Feng Ya Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2233T.

Flux Cored Arc Welding (FCAW) welding of weld joint OBW7B-004. Welder is identified as 067079. ZPMC Quality Control (QC) is identified as Mr. Feng Ya Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2233T.

Shielded Metal Arc Welding (SMAW) welding of weld joint CA031-006. Welder is identified as 047864. ZPMC Quality Control (QC) is identified as Mr. Feng Ya Jun. The welding variables recorded by QC appeared to comply

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with the Applicable WPS: WPS-B-P-2214-TC-U4b-FCM-1.

SEGMENT: 6AW

Shielded Metal Arc Welding (SMAW) welding of Repair weld joint CA025-006. Welder is identified as 050433. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-SMAW-2G (2F) FCM-Repair-1 and Critical Welding Repair Report (CWR) is B-CWR-1055.

AREA: MATERIA STORAGE AREA (North side of Bay 1~9)

This QA performed Witnessed of plate cut test samples packing prior to shipping the samples to laboratory for chemical analysis, This has been carried out against the "List of Material for Caltrans Check Test Samples(the 239,242&243rd batch)Plate List 280,283 &284 respectively"and the procedure is "Check Sampling Procedure-Inspector"(issued from the Engineer).

- Total number of Test Samples: 16 no's.

The attached photographs provide additional detail.

The plates are identified as follows:

1. Material No: 13177, Batch No: 09208177060101, Heat No: 09208177, Grade: A709M-345F2-X and Thickness: 25 mm. (Lot#299, check sample#01)
2. Material No: 13187, Batch No: 09108068330101, Heat No: 09108068, Grade: A709M-345F2-X and Thickness: 45 mm. (Lot#299, check sample#02)
3. Material No: 13185, Batch No: 09207926340103, Heat No: 09207926, Grade: A709M-345F2-X and Thickness: 07 mm. (Lot#299, check sample#03)
4. Material No: 13156, Batch No: 09208183040103, Heat No: 09208183, Grade: A709M-345F2-X and Thickness: 30 mm. (Lot#299, check sample#04)
5. Material No: 13145, Batch No: 09208178310101, Heat No: 09208178, Grade: A709M-345F2-X and Thickness: 35 mm. (Lot#299, check sample#05)
6. Material No: 13148, Batch No: 09208180310102, Heat No: 09208180, Grade: A709M-345F2-X and Thickness: 40 mm. (Lot#299, check sample#06)
7. Material No: 13146, Batch No: 09208179010101, Heat No: 09208179, Grade: A709M-345F2-X and Thickness: 35 mm. (Lot#299, check sample#07)
8. Material No: 13082, Batch No: B918387, Heat No: 09303660N2, Grade: A709M-345T2-X-S and Thickness: 14

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mm. (Lot#299, check sample#08)

9. Material No: 13083, Batch No: B918517-1-1, Heat No: 07307530N0, Grade: A709M-345F2-X-Z25 and Thickness: 18 mm. (Lot#299, check sample#09)

10. Material No: 13086, Batch No: B922519, Heat No: 09302545N3, Grade: A709M-345T2-X and Thickness: 12 mm. (Lot#299, check sample#10)

11. Material No: 13026, Batch No: HB912946, Heat No: 09402863N3, Grade: A709M-345F2-X and Thickness: 60 mm. (Lot#298, check sample#05)

12. Material No: 13090, Batch No: CHA917996, Heat No: 09201504N0, Grade: A709M-345F2-X-Z and Thickness: 100 mm. (Lot#298, check sample#02)

13. Material No: 13059, Batch No: CHB914708, Heat No: 09305605N3, Grade: A709M-345F2-X-Z and Thickness: 100 mm. (Lot#298, check sample#01)

14. Material No: 13061, Batch No: CHB913808, Heat No: 09305606N3, Grade: A709M-345F2-X-Z and Thickness: 75 mm. (Lot#298, check sample#06)

15. Material No: 13060, Batch No: CHB913600, Heat No: 09305703N2, Grade: A709M-345F2-X-Z and Thickness: 100 mm. (Lot#298, check sample#03)

16. Material No: 13105, Batch No: 09208184330201, Heat No: 09208184, Grade: A709M-345F2-X and Thickness: 22 mm. (Lot#298, check sample#04)

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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### Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, Skyler 15000422360, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Prabhu,Surendra
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Miller,Mark
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QA Reviewer
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